

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11)

EP 0 903 881 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
18.09.2002 Bulletin 2002/38

(51) Int Cl.7: H04J 3/14, H04L 1/02,
H04L 1/14

(43) Date of publication A2:
24.03.1999 Bulletin 1999/12

(21) Application number: 98306393.4

(22) Date of filing: 11.08.1998

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE
Designated Extension States:
AL LT LV MK RO SI

- Molen, Karen Louise
Naperville, Illinois 60564 (US)
- Salazar, Jaime E.
Austin, Texas 78749 (US)
- Sosinski, Mark Roman
Downers Grove, Illinois 60516 (US)
- Sparber, Richard Grant
Wheaton, Illinois 60187 (US)

(30) Priority: 29.08.1997 US 920993

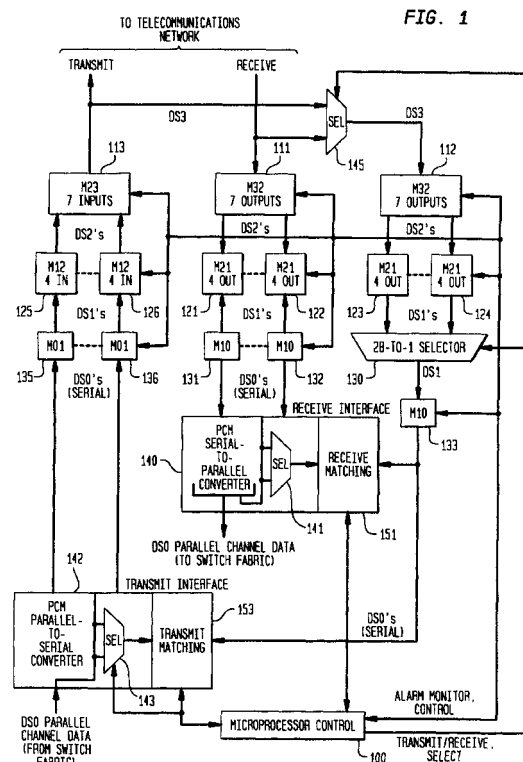
(71) Applicant: LUCENT TECHNOLOGIES INC.
Murray Hill, New Jersey 07974-0636 (US)

(74) Representative:
Buckley, Christopher Simon Thirsk et al
Lucent Technologies (UK) Ltd,
5 Mornington Road
Woodford Green, Essex IG8 0TU (GB)

- (72) Inventors:
- Habegger, Kenneth Leon
Naperville, Illinois 60565 (US)
 - Poole, Ronald Keith
Warrenville, Illinois 60564 (US)

(54) Detecting digital multiplexer faults

(57) To test a primary train of tiered demultiplexers (111, 121, 122, 131, 132), a data path assurance train of demultiplexers (112, 123, 124) and a selector (130) is used to generate a demultiplexed signal for comparison (in 151) with a primary demultiplexed signal. To test a primary train of tiered multiplexers (113, 125, 126, 135, 136), the output of the final multiplexing stage (113) is connected to the input of the data path assurance train of demultiplexers to generate a demultiplexed signal for comparison (in 153) with a primary input signal to the primary multiplexer train. Advantageously, a simpler, more reliable, and less expensive data path assurance circuit using the same types of components as the primary multiplexers and demultiplexers can be used to detect failures in these primary units as well as the data path assurance circuit.



EP 0 903 881 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 98 30 6393

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	US 4 993 013 A (SHINADA SHIGEO ET AL) 12 February 1991 (1991-02-12) * column 2, line 1 - column 2, line 38 * ---	1	H04J3/14 H04L1/02 H04L1/14
A	PATENT ABSTRACTS OF JAPAN vol. 009, no. 225 (E-342), 11 September 1985 (1985-09-11) & JP 60 084035 A (MITSUBISHI DENKI KK), 13 May 1985 (1985-05-13) * abstract * -----	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			H04J H04Q H04L
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
THE HAGUE		22 July 2002	Molinari, F
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03/82 (P04/G01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 98 30 6393

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

22-07-2002

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4993013 A	12-02-1991	JP 1103039 A	20-04-1989
JP 60084035 A	13-05-1985	NONE	